

Claims

What is claimed is:

1. A system for controlling access to information items comprising:

a) a storage subsystem containing definitions of customer groups, customer information including which customer group or groups to which each customer belongs, information item definitions including which customer group or groups with which each information item is associated, a set of group source keys, each group source key being associated with a different one of the customer groups, a set of group member keys, each group member key being associated with a different one of said group source keys;

b) an encryption subsystem for encrypting information items information items associated with a customer group using the group source key associated with the same group; and

c) an authentication subsystem for allowing a customer access to a group member key once the customer has been authenticated as a member of the customer group with which the group member key is associated, thereby enabling the customer to use the group member key to decrypt item information previously encrypted using the associated group source key.

2. A system as defined in claim 1 wherein the authentication subsystem further includes:

a) an authentication storage subsystem for storing customer identifiers and associated passwords; and

b) authentication logic for receiving customer identifier and password inputs, comparing the received inputs to stored customer identifiers and associated passwords, and authenticating the inputs provider when the inputs matched the stored corresponding information.

3. A system as defined in claim 1 wherein the information items include pricing information.

4. A system as defined in claim 2 wherein the information items including pricing information.

1 5. A method for controlling access to information items comprising the steps of:
2 a) storing definitions of customer groups;
3 b) storing customer information including which customer group or groups to which each
4 customer belongs;
5 c) storing information items including which customer group or groups with which each
6 information item is associated;
7 d) storing sets of key pairs, each key pair being associated with one of the defined
8 customer groups and comprising a group source key and a group member key;
9 e) encrypting at least one information item using the group source key for the group with
10 which the information item is associated; and
11 f) providing the group member keys to customer members of the groups with which the
12 group member keys are associated, thereby enabling a customer to decrypt an encrypted
13 information item associated with the customer's group.

1 6. A method as defined in claim 5 wherein the stored customer information includes customer
2 identifiers and passwords and wherein the providing step further includes the steps of:
3 a) receiving customer identifier and password inputs;
4 b) comparing the received inputs to stored customer identifiers and passwords;
5 c) responding to a match between the received inputs and a stored customer identifier and
6 password by identifying the customer as having been authenticated; and
7 d) making available the group member key associated with a customer group to which the
8 authenticated customer belongs.

1 7. A program product having a computer-readable medium storing computer-readable program
2 code for controlling access to information items, said computer-readable program code comprising:

- 3 a) code for causing the storage of definitions of customer groups;
- 4 b) code for causing the storage of customer information including which customer group
5 or groups to which each customer belongs;
- 6 c) code for causing the storage of information items including which customer group or
7 groups with which each information item is associated;
- 8 d) code for causing the storage of sets of key pairs, each key pair being associated with
9 one of the defined customer groups and comprising a group source key and a group member key;
- 10 e) code for encrypting at least one information item using the group source key for the
11 group with which the information item is associated; and
- 12 f) code for providing the group member keys to customer members of the groups with
13 which the group member keys are associated, thereby enabling a customer to decrypt an
14 encrypted information item associated with the customer's group.

15 8. A program product as defined in claim 7 wherein the stored customer information includes
16 customer identifiers and passwords and the program product further includes:

- 17 a) code for receiving customer identifier and password inputs;
- 18 b) code for comparing the received inputs to stored customer identifiers and passwords;
- 19 c) code responsive to a match between the received inputs and a stored customer
20 identifier and password to identify the customer as having been authenticated; and
- 21 d) code responsive to the authentication to make available the group member key
22 associated with a customer group to which the authenticated customer belongs.